Understanding Stages of Avascular Necrosis (AVN) of the Hip

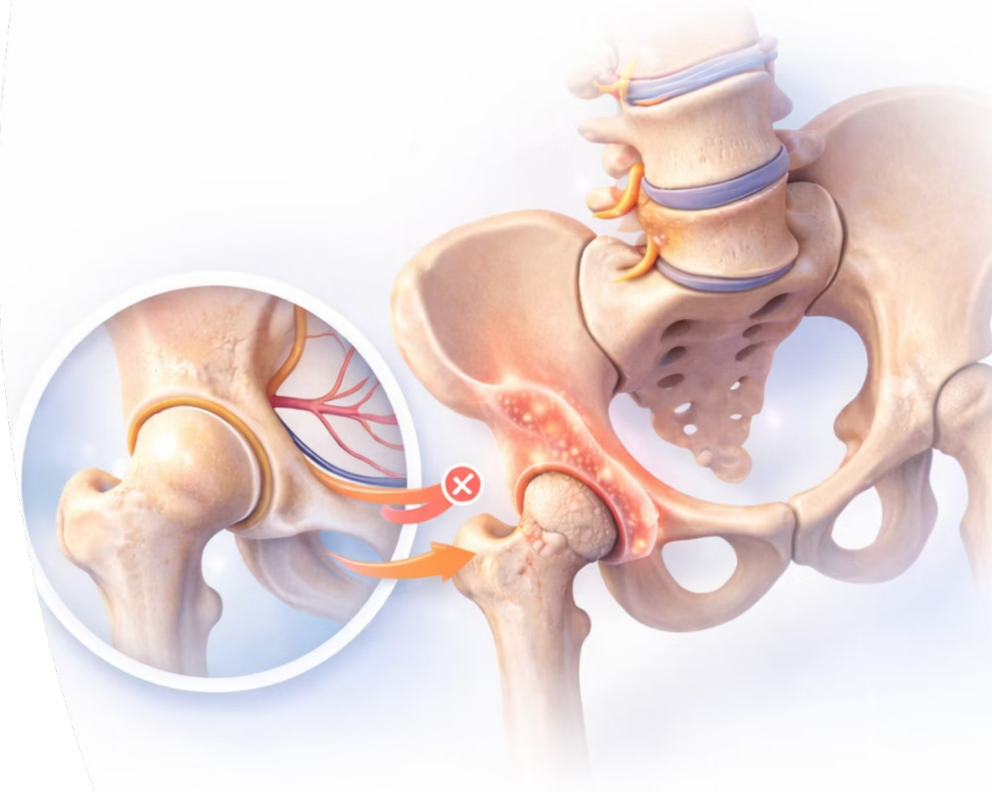
Key Features, Symptoms & Stage-Based Treatment

HipXpert https://hipxpert.in

What is Avascular Necrosis (AVN)?

Avascular Necrosis (AVN) occurs when blood supply to the femoral head is reduced, leading to bone damage and possible collapse.

Early diagnosis is critical to prevent joint destruction.



Why AVN Staging is

Determines treatment approach

Identifies disease severity

Predicts progression

Guides joint preservation vs surgery

AVN Progression

1

2

Stage 1

MRI changes only (X-ray normal)

Stage 2

Bone changes visible (no collapse)

3

4

Stage 3

Early collapse begins

Stage 4

Advanced damage with arthritis

Stage 1 (Early

Key Features

- Only detected by MRI
- No structural damage or collapse

Symptoms

- Mild or intermittent hip pain
- Pain during activity
- Sometimes no symptoms

 Diagnosis at this stage is possible only through MRI

Stage 2 AVN

Key Features

- X-ray shows sclerosis or cysts
- Femoral head shape preserved
- No collapse

Symptoms

- Increasing hip pain
- Stiffness
- Reduced range of motion

Stage 3 AVN (Early

Key Features

- Subchondral fracture (crescent sign)
- Early collapse of femoral head
- Joint surface becomes irregular

Symptoms

- Persistent pain
- Pain while walking or weight-bearing
- Limping

Stage 4 AVN (Advanced

Key Features

- Flattened femoral head
- Joint space narrowing
- Secondary osteoarthritis

Symptoms

- Severe pain (even at rest)
- Significant stiffness
- Major mobility restriction

Stage-Based AVN

1	2	3
Stage 1 & 2	**Selected Stage 3**	**Stage 4**
Focus on joint preservation	Careful evaluation	Joint replacement

SVF Therapy for AVN

Adipose-Derived SVF Therapy is an advanced regenerative approach designed to:

Support bone repair

Improve blood supply

Promote joint preservation

Applicable in **Stage 1, Stage 2 & selected Stage 3**

Identify the Stage.

→ Early stages are treatable

Act Early.

→ Delay leads to irreversible damage

→ Right timing improves outcomes

Consult HipXpert

Website
https://hipxpert.in

Phone
+91 8223082900

Email
info@hipxpert.in

Corporate Office: 13/2, South Tukoganj, Near Manas Bhavan, Behind Hotel Surya, Indore, Madhya Pradesh 452001